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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/551,399	04/17/2000	Christopher J. Chase	03493.86913	1414

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EXAMINER
HOM, SHICK C

ART UNIT	PAPER NUMBER
2661	

DATE MAILED: 12/21/2001

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/551,399	Applicant(s) CHASE ET AL.	
	Examiner Shick C Hom	Art Unit 2661	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *7/25/01, 8/22/01, 10/17/01, 10/24/01* .

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-72* is/are pending in the application.

4a) Of the above claim(s) *1,3,4,11-20,23,25,26,28,33,36,38-42,47,48 and 53* is/are withdrawn from consideration.

5)☒ Claim(s) *2,5-10,21,22,31,32,34,35,37,52,54 and 55* is/are allowed.

6)☒ Claim(s) *24,27,29,30,43-46,49-51 and 56-72* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☒ The proposed drawing correction filed on *17 October 2001* is: a)☒ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *13 & 15* .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 8-22-01 have been fully considered but they are not persuasive.

Information Disclosure Statement

2. The information disclosure statement filed 7/25/01 fails to comply with the provisions of 37 CFR 1.97, 1.98 and MPEP § 609 because the publication date of documents were not provided for those not initialed by the examiner. It has been placed in the application file, but the information referred to therein has not been considered as to the merits. Applicant is advised that the date of any re-submission of any item of information contained in this information disclosure statement or the submission of any missing element(s) will be the date of submission for purposes of determining compliance with the requirements based on the time of filing the statement, including all certification requirements for statements under 37 CFR 1.97(e). See MPEP § 609 ¶ C(1).

Specification

3. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103© and

potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 24, 27, 29-30, 43-46, and 49-51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schibler et al. in view of Focsaneanu et al.

Schibler et al. disclose nearly all the subject matter now claimed. In page 9 lines 14-24 of the argument, applicant argued Schibler et al. in view of Focsaneanu et al. fail to teach the separate routing tables for the service categories as in claim 46 and the frame relay frame having a data link connection identifier DLCI, wherein at least one data link connection identifier is associated with a service category; and means for associating a data link connection identifier with a virtual network path according to the service category with which the data link connection identifier is associated as in claim 49. Further, in page 9 line 25 to page 10 line 1 of the argument, applicant argued Schibler et al. in view of Focsaneanu et al. fail to teach transmitting at least a portion of the frames over at least one of a plurality of virtual networks, each representing different service classes and each class being associated with a DLCI as in claim 50. Note col. 3 line 63 to

col. 4 line 19 which recite the method of routing having routes calculated in advance for all possible categories of hypothetical route requests whereby tables of precalculated routes are maintained wherein changes occurring in switch and network topology require only changes to the created tables; col. 4 lines 20-43 which recite the route processor accepting route request cells from various line cards within the broadband switching module, extracting service and addressing information therefrom, building and receiving route response cells, performing table lookup function through the routing tables and in response to route request received from a line card, extracts the service type, and determining whether the destination address is a single or group address; and col. 4 lines 63-67 which recite the use of a virtual circuit identifier VCI for routing being taken from a list of available VCIs placed within the route response cell clearly anticipate the separate routing tables for the service categories as in claim 46, means for associating a data link connection identifier with a virtual network path according to the service category with which the data link connection identifier is associated as in claim 49, and transmitting at least a portion of the frames over at least one of a plurality of virtual networks as in claims 50 and 51. Further, col. 6 lines 35-55 which recite the line card converting

data from frame relay format into ATM cell format clearly anticipate the translation circuitry for translating frame relay packets into ATM mode cells as in claims 43, 44, the ATM switch and packet as in claims 46, 30, and the use of frame relay frames as in claim 49. Col. 8 lines 22-39 which recite using a database containing user service profile USP, i.e. information concerning the user subscribed service categories, the modalities of handling different types of traffic, and address conversion for easy addressing whereby the database also contain protocol conversion, rerouting, and other information which is required by transport networks for better management clearly anticipate using routing tables for each of the plurality of service categories as in claims 24 and 27.

Schibler et al. did not recite the use Internet Protocol IP data as in claims 43-45, 51, the error checking circuitry for determining routing errors as in claim 45, using the mesh network as in claim 50, and the data link connection identifier as in claims 43, 44, 46, 49, 50, 51.

Focsaneanu et al. teach that it is known to use network interfaces including X.25 packet networks, frame relay, SMDS, ATM, TCP/IP as set forth at col. 10 line 57 to col. 11 line 2 in the field of digital and multiplex communications for the purpose of providing access to telecommunications networks in multi-

service environment which clearly anticipate the use of the frame relay data packets. Col. 2 lines 37-61 which recite the use of multimedia broadband switched networks for carrying different types of traffic, i.e. voice, data, and video information including the use of broadcasting and multicasting through the circuit switched network and accessing the Internet via the PSTN and whereby the network service providers provide access to various other private networks, academic networks etc., which contain vast numbers of databases for value added services clearly anticipate routing over the Internet as in claims 43-45, 51. Col. 8 lines 41-54 which recite the layer 1 and layer 2 functionalities supported by today's modem standards whereby Layer 2 implementation include data link connection, error notification, flow control and data unit transfer clearly anticipate the step of determining routing errors as in claim 45. Col. 2 lines 46-61 which recite using the telephone circuit switched networks whereby a connection is maintained during the whole duration of a call through switches and other associated network elements, regardless of the type of the call wherein only one circuit switched connection can be maintained for the call clearly anticipate using the mesh network as in claim 50. Col. 8 lines 40-53 which recite the functionalities supported at layer 1 including physical connection activation and deactivation, data

circuit identification, sequencing, either synchronous or asynchronous transmission of physical service data units, and fault condition notification and Layer 2 data link connection, error notification, flow control and data unit transfer clearly anticipate the data link connection identifier as in claims 43, 44, 46, 49, 50, 51.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use frame relay data packets including Internet Protocol IP data, error checking circuitry for determining routing errors, mesh network, and data link connection identifier as taught in Focsaneanu et al. to the system of Schibler et al. because Focsaneanu et al. teach the desirable advantage of providing a more flexible and adaptable access to telecommunications network in a multi-service environment and said more flexible and adaptable access being desirable to achieve less wasteful of resources and more efficient system operation in Schibler et al.

7. Claims 56-72 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hauser et al. in view of Focsaneanu et al.

Hauser et al. disclose nearly all the subject matter now claimed. Note col. 12 line 61 to col. 13 line 4 which recite a

distributed switching architecture having means for offering within a quality of service, multiple priority levels with different categories of service, whereby in each quality of service, the highest priority is typically given to connection/network management traffic, as identified by the cell header, the second highest priority is given to low bandwidth, small burst connections, and third highest for bursty traffic clearly anticipate header data comprising service category indicator and switching being responsive to the header data as in claims 56 and 68 and the step of discriminating between quality of service categories as in claim 61. Col. 13 lines 56-65 which recite the frame relay setting including Internet traffic clearly anticipate the user data comprising IP address as in claims 65 and 72, the frame relay data packets as in claim 66. Col. 19 lines 64-65 which recite the ATM cells clearly anticipate the ATM data packets as in claim 67.

Hauser et al. did not recite the service category indicator and data link connection identifier DLCI as in claims 56, 68, the use of a virtual private network responsive to user data as in claims 57-60, 69-70, the multicast data, voice data, and video data as in claims 62-64, and 71.

Focsaneanu et al. teach that it is known to use network interfaces including X.25 packet networks, frame relay, SMDS,

ATM, TCP/IP as set forth at col. 10 line 57 to col. 11 line 2 in the field of digital and multiplex communications for the purpose of providing access to telecommunications networks in multi-service environment which clearly anticipate the use of the frame relay data packets. Col. 2 lines 37-61 which recite the use of multimedia broadband switched networks for carrying different types of traffic, i.e. voice, data, and video information including the use of broadcasting and multicasting through the circuit switched network and accessing the Internet via the PSTN and whereby the network service providers provide access to various other private networks, academic networks etc., which contain vast numbers of databases for value added services clearly anticipate the service category indicator and data link connection identifier DLCI as in claims 56, 68, the use of a virtual private network responsive to user data as in claims 57-60, 69-70, the multicast data, voice data, and video data as in claims 62-64, and 71. Col. 8 lines 40-53 which recite the functionalities supported at layer 1 including physical connection activation and deactivation, data circuit identification, sequencing, either synchronous or asynchronous transmission of physical service data units, and fault condition notification and Layer 2 data link connection, error notification, flow control and data unit transfer clearly

anticipate the service category indicator and the data link connection identifier as in claims 56 and 68.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use frame relay data packets including the service category indicator, the data link connection identifier DLCI, the use of a virtual private network responsive to user data, the multicast data, voice data, and video data as taught in Focsaneanu et al. to the system of Hauser et al. because Focsaneanu et al. teach the desirable advantage of providing a more flexible and adaptable access to telecommunications network in a multi-service environment and said more flexible and adaptable access being desirable to achieve less wasteful of resources and more efficient system operation in Hauser et al.

Allowable Subject Matter

8. Claims 2, 5-10, 21-22, 31-32, 34-35, 37, 52, and 54-55 are allowed.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Chung et al. disclose client-side parallel requests for network services using group name association.

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

11. **Any response to this final action should be mailed to:**

Box AF

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9314, (for formal communications; please mark "EXPEDITED PROCEDURE")

Or:

(for informal or draft communications, please label "PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington. VA., Sixth Floor (Receptionist).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shick Hom whose telephone number is (703) 305-4742.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-4750.

SH

December 15, 2001

Douglas W. Olms

DOUGLAS OLMS
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